

MC-Injekt TS-07

Resin for Water Tightening and Strengthening

Product Properties

- Low-viscosity, acrylic-based injection resin
- Very good penetration into fine-grained conglomerate
- Can be injected into dry, damp and waterfilled media
- Short, controllable reaction time
- Impermeable to water and compression proof
- Fulfils UBA-guideline for repair systems in contact with drinking water
- Fulfils requirements of DIBt-bulletin

Areas of Application

- Stabilisation, sealing, improvement of the cohesion in rock and fine grained soils
- Sealing and strengthening of concrete and masonry
- REACh-assessed exposure scenarios: water-contact long-term, inhalation short time, application

Application

Preparation

Before injection the structure's cracks and voids have to be inspected according to technical standards and regulations, and an injection proposal is to be planned.

Mixing

MC-Injekt TS-07 is a multi-component injection system, consisting of component A and component B, which are mixed from sub-components at the construction site.

Reaction time is controlled by the addition of A2 into sub-component A1. Standard pot life is 3 min 41 s at 20 °C. ATTENTION! Avoid to use more than 100 ml of material for the evaluation of the reaction time. Uncontrolled reaction of significant volumes of material leads to a fierce reaction. Wearing of safety equipment is imperative!

Control of the reaction time over the concentration of sub-component A2

Mixture of components

25 kg of sub-component A1 mixed with 0.25 - 6.0 kg (0.22 - 5.36 l) of sub-component A2

25 kg of sub-component B1 mixed with a solution of 0.5 kg B2-powder and 2.8 l water

component A : component B = 1 : 1 p.b.v.

| sub-component A2 | 20 °C | 10 °C |
|------------------|------------|------------|
| 0.25 kg (1 %) | 15 min | 33 min |
| 0.50 kg (2 %) | 7 min 07 s | 15 min |
| 1.00 kg (4 %) | 3 min 41 s | 8 min 16 s |
| 1.50 kg (6 %) | 2 min 36 s | 5 min 30 s |
| 3.00 kg (12 %) | 1 min 39 s | 3 min 15 s |
| 6.00 kg (24 %) | 1 min 07 s | 2 min 08 s |

Control of the compressive strength

The compressive strength of MC-Injekt TS-07 can be controlled by water addition (additionally to 2.8 l mixing water). The water to be added is to be distributed equally between components A and B.

| Water addition (per component) | Compressive strength |
|--------------------------------|----------------------|
| 0.0 l (0 %) | 12.5 MPa |
| 2.5 l (≈ 9 %) | 5.6 MPa |
| 5.0 l (≈ 18 %) | 4.6 MPa |
| 10.0 l (≈ 36 %) | 3.4 MPa |

Injection

MC-Injekt TS-07 can be injected into fine cracks and fractures and into voids of < 100 ml. The material must be applied with a two-component-pump (e.g. MC I 700).

Machine cleaning

Within the product's application time all equipment can be cleaned with water. Partly or fully reacted material can only be removed mechanically.



Technical Data for MC-Injekt TS-07

| Characteristic | Unit | Value * | Comments |
|---|--------------------|----------------|---|
| Mixing ratio | p.b.w. | 25 : 1 | A1 : A2 (standard mix) |
| | p.b.w. | 0.5 : 2.8 | B2 : water (B2-solution) |
| | p.b.w. | 25 : 3.3 | B1 : B2-solution |
| | p.b.v. | 1 : 1 | component A : component B |
| Density | kg/dm ³ | 1.1 | DIN 53 479 |
| Viscosity | mPa·s | approx. 5 | DIN EN ISO 3219 |
| Compressive strength | MPa | 12.5 | DIN EN 196 T1 (without water addition; c.f. Control of compressive strength) |
| Compressive strength with sand H32 | MPa | up to 14.0 | DIN EN 196 T1 ** 1 : 3 p.b.w. |
| Compressive strength with sand 0.7 - 1.2 mm | MPa | up to 14.0 | DIN EN 196 T1 ** 1 : 3 p.b.w. |
| Application time | minutes | approx. 1 - 15 | |
| Application temperature | °C | + 1 - + 35 | air-, material temperature and substrate temperature |

* All technical values relate to 20 °C and 50 % relative humidity.

** Depending on the injected medium (composition, porosity, water content etc.) the achievable strengths may be lower; the strain hardening is to be verified by means of a trial injection on site.

Product Characteristics for MC-Injekt TS-07

| | | | |
|----------|--|------------------------------|--|
| Colour | light red | | |
| Delivery | component A1 | 25 kg cans and 100 kg pack | |
| | component A2 | 4 x 1 kg boxes and 2 kg cans | |
| | component B1 | 25 kg cans and 100 kg pack | |
| | component B2 | 4 x 0.5 kg boxes | |
| Storage | Can be stored in original sealed packages at temperatures between + 5 °C und + 25 °C in dry conditions for at least 1 year. All components must be protected from heat and direct sunlight during storage as well as during transport! | | |
| Disposal | Packs must be emptied completely. Leftovers must be mixed and sand must be added. | | |

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 03/11. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.